



DOCKET NO.: CSAC-0009
Application No.: 09/782,337

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Ramesh and Smith

Confirmation No.: 9820

Application No.: 09/782,337

Group Art Unit: 1771

Filing Date: February 13, 2001

Examiner: Chang, V.

For: Polyolefin Film/Foam/Film Composite Materials and Methods for Producing Same

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Declaration of Dr. Natarajan S. Ramesh Under 37 C.F.R. § 1.132

I, Dr. Natarajan S. Ramesh, hereby declare the following:

1. I am the Director of Research and Development for the Polyolefin Foam Division, North America, at Sealed Air Corporation. I have a PhD as well as a Masters degree in chemical engineering from Clarkson University in Potsdam, New York, and a Bachelor of Technology degree in chemical engineering from the University of Madras, India. I have worked in the area of polyolefin foams and composite materials for more than 10 years. In 2002, I was elected Fellow of the Society of Plastics Engineers.
2. I am a co-inventor of the above-captioned patent application ("the subject application").
3. It is my understanding that claims 13, 14, 29, and 30 of the subject application are generally directed to composite flooring materials wherein stretch-oriented polyolefin films are heat-laminated to a polyolefin foam sheet.
4. I have reviewed the Office Action dated September 8, 2003. As I understand it, the Examiner has suggested that claims 13, 14, 29, and 30 of the application fail to comply with

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the enablement requirement of 35 U.S.C. §112, 1st paragraph, because "the Specification lacks a teaching as to how to prevent the known wrinkle problem typically associated with the heat shrinkage of an oriented film by heat lamination."

5. This declaration is provided to demonstrate that the practice of the claimed invention is fully enabled by the specification. In my opinion, there would be no technical difficulty in implementing the claimed invention.

6. A preferred process for heat lamination is described in the subject application at page 11, lines 11 to 30. In this process, as described in the specification, heat lamination occurs at a temperature and speed sufficient to cause bonding of the polyolefin film to the polyolefin foam, but the temperature of the process and time of heat exposure are insufficient to cause melting of the film or complete or partial collapse of the cells of the foam sheet.

7. Based upon my experiences, it is my opinion that, contrary to the assertion in the Office Action, heat lamination of an oriented film does not result in a "wrinkle problem," because one of skill in the art understands how to manipulate the process to prevent any such wrinkling from occurring. In particular, to the extent any such wrinkle problem may arise, one of ordinary skill in the art of polyolefin films would recognize that wrinkling of a stretch-oriented polyolefin film can be controlled during the heat lamination process by laminating the film to the foam at a temperature lower than the heat set temperature of the film, but sufficient to cause bonding of the film and foam.

8. It is also my opinion that one of ordinary skill in the art would readily recognize that the speed and temperature of the process, in particular the speed and temperature of the hot roller, can be readily adjusted to ensure that the lamination temperature remains below the heat set temperature of the film used, thereby eliminating both shrinkage and wrinkling of the film. These adjustments are made routinely.

9. For example, anyone who is familiar with heat lamination of oriented films would know that shrinking, and therefore wrinkling, of stretch-oriented polyolefin films can be prevented by ensuring that the lamination temperature of the film remains at a temperature at least about 15 to 20 °F below the heat set temperature of the film. It is also my opinion that

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anyone who is familiar with heat lamination of oriented films would be able to practice the claimed invention without undue difficulty.

10. I further declare that all statements made herein of my knowledge are true and that all statements made on information or belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 12/8/2003

N. S. Ramesh
Dr. Natarajan S. Ramesh